IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of:

OCT 1 5 2002

Nazarenko et al.

Art Unit:

TECH CENTER 1600/2900

Appl. No. 10/026,952

Filed: December 27, 2001

Attv. Docket: 0942.4980006/RWE/MTT

For: Primers and Methods for the Detection and Discrimination of

Nucleic Acids

Information Disclosure Statement

Commissioner for Patents Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of dischosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. A copy of each document is provided

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following, in regards to non-English language document AS4 cited on Form PTO 1449-

Document AS4 is in a foreign language. An English language translation is not readily available.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Brian J. Del Buono

Robert W. Esmond
Attorney for Applicants
Registration No. 32,893

Date: October 11, 2002

1100 New York Avenue, N.W. Suite 600 Washington, D.C. 20005-3934 (202) 371-2600

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Page 1 of 16 APPLICATION NO. ATTY. DOCKET NO. 0942.4980006/RWE/MTT FORM PTO-1449 APPLICANT Nazarenko et al. INFORMATION DISCLOSURE STATEMENT CROTTE FILING DATE December 27, 2001 1623 U.S. PATENT DOCUMENTS PYAMINED FILING DATE CLASS SUB-DATE NAME INITIAL DOCUMENT CLASS NUMBER ΔΔ RECEIVED AB 20 AD ΑE TECH CENTER 1800/2900 AF AG ΑH ΑI ΑJ AK FOREIGN PATENT DOCUMENTS EXAMINER COUNTRY CLASS SIIR-TRANSLATION DOCUMENT DATE INITIAL CLASS NUMBER Vac No AT-1 EP 0 50.424 09/24/1981 Europe Vec No AM1 EP 0 84.796 01/11/1983 Europe Vec No AN1 EP 0 144 914 11/29/1984 Europe Yes an1 EP 0 119 448 02/10/1984 Europe Yes No EP 0 201 184 03/27/1986 Europe ΔD1 OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Abe, T., et al., "Specific inhibition of influenza virus RNA polymerase and nucleoprotein gene expression by circular dumbbell RNA/DNA chimeric AR oligonucleotides containing antisense phosphodiester oligonucleotides," FEBS Lett. 425:91-96, Elsevier Science Publishers B.V. (1998) Austermann, S., et al., "Inhibition of Human Immunodeficiency Virus Type 1 Reverse Transcriptase by 3'-Blocked Oligonucleotide Primers," Biochem. Pharmacol. AS 43:2581-2589, Elsevier Science (1992) Barnes, W.M., "The fidelity of Taq polymerase catalyzing PCR is improved by an N-ΑТ terminal deletion, " Gene 112:29-35, Elsevier Science Publishers B.V. (1992)

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

EXAMINER

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DATE CONSIDERED

APPLICATION NO. ATTY. DOCKET NO. 0942.4980006/RWE/MTT 10/026,952 FORM PTO-1449 APPLICANT Nazarenko et al. INFORMATION_DISCLOSURE STATEMENT FILING DATE GROUP December 27, 2001 1623 U.S. PATENT DOCUMENTS EXAMINED TNITIAL DOCUMENT DATE MAME CLASS SUB-FILING DATE NUMBER CLASS AA AB АC AD TECH DENTER 1600/2000 ΑE ΔP AG AH ΑI AJ AK FOREIGN PATENT DOCUMENTS EXAMINER INITIAL DOCUMENT DATE COUNTRY CLASS SUB-TRANSLATION NUMBER CLASS Yes ΑL No Yes No Yes ΔМ No Yes ΑO No Yes No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Soltis, D.A., and Skalka, A.M., "The α and β chains of avian retrovirus reverse transcriptase independently expressed in Escherichia coli: Characterization of 14 AR enzymatic activities, " Proc. Natl. Acad. Sci. USA 85:3372-3376, National Academy of Sciences of the USA (1988) Stein, C.A., et al., "Physicochemical properties of phosphorothicate oligodeoxynucleotides," Nucl. Acids Res. 16:3209-3221, Oxford University Press AS 14 (1988) Tyagi, S., and Kramer, F.R., "Molecular Beacons: Probes that Fluoresce Upon ТΔ 14 Hybridization," Nature Biotechnol. 14:303-309, Nature Publishing Co. (1996) EXAMINER DATE CONSIDERED EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next

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DATE CONSIDERED

ATTY. DOCKET NO. APPLICATION NO. 10/026,952

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INFORMATION DISCLOSURE STATEMENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of:

Nazarenko et al.

Appl. No. 10/026,952

Filed: December 27, 2001

Primers and Methods for the Detection and Discrimination of

Nucleic Acids

Confirmation No. 7365 OCT 1 5 2002

Art Unit: 1623 TECH CENTER 1600/2900

Examiner: To be assigned

Atty. Docket: 0942.4980006/RWE/MTT

First Supplemental Information Disclosure Statement

Commissioner for Patents Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this First Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Information Disclosure Statement filed herewith in connection with the above-captioned application. A copy of each document is also provided.

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Consideration of the cited documents and making the same of record in the prosecution of the above-identified application is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

& autalik

: Robert W. Esmond
Attorney for Applicants
Registration No. 32,893

Date: October 1, 2002

1100 New York Avenue, N.W. Suite 600 Washington, D.C. 20005-3934 (202) 371-2600

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October 11, 2002

WRITER'S DIRECT NUMBER: (202) 371-2560 INTERNET ADDRESS: RESMOND@SKGF.CO

Hand&ar.

Commissioner for Patents Washington, D.C. 20231

> Re: U.S. Utility Patent Application

> > Appl. No. 10/026,952; Filed: December 27, 2001

Primers and Methods for the Detection and Discrimination of Nuclei

Acids

Inventors Nazarenko et al.

Our Ref:

0942.4980006/RWE/MTT

RECFIVE

OCT 1 5 2007

Sir:

TECH CENTER 1600/2900

Transmitted herewith for appropriate action are the following documents:

- 1. Information Disclosure Statement:
- List of cited references on Form PTO-1449 (16 sheets); 2.
- 3. A copy of each reference cited on Form PTO-1449 (70 references);
- 4. First Supplemental Information Disclosure Statement:
- 5. List of cited references on Form PTO-1449 (1 sheet);
- 6. A copy of each reference cited on Form PTO-1449 (4 references);
- 7. Second Supplemental Information Disclosure Statement;
- 8. List of cited references on Form PTO-1449 (2 sheets):
- 9. A copy of each reference cited on Form PTO-1449 (4 references):
- 10. Third Supplemental Information Disclosure Statement;
- -11. List of cited references on Form PTO-1449 (2 sheets);
- 12. A copy of each reference cited on Form PTO-1449 (6 references):
- 13. Fourth Supplemental Information Disclosure Statement;
- 14. List of cited references on Form PTO-1449 (6 sheets);
- 15. A copy of each reference cited on Form PTO-1449 (19 references);
- 16. Fifth Supplemental Information Disclosure Statement;
- 17. List of cited references on Form PTO-1449 (1 sheet):

Commissioner for Patents October 11, 2002 Page 2

- 18. A copy of each reference cited on Form PTO-1449 (3 references); and
- One (1) Return Postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C

Robert W. Esmond

Attorney for Applicants Registration No. 32,893

RWE/MTT/dnk Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Confirmation No. 7365 RECEIVED

Nazarenko et al.

Art Unit:

OCT 1 5 2002

Appl. No. 10/026,952

To be assigned CENTER 1600/2900

Filed: December 27, 2001

Attv. Docket: 0942.4980006/RWE/MTT

Primers and Methods for the

Detection and Discrimination of Nucleic Acids

Second Supplemental Information Disclosure Statement

Commissioner for Patents Washington, D.C. 20231

Sir

For:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Second Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' First Supplemental Information Disclosure Statement filed herewith in connection with the above-captioned application. A copy of each document is also provided.

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Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C

Robert W. Esmond

Attorney for Applicants Registration No. 32,893

Date: October 1/2002

1100 New York Avenue, N.W. Suite 600 Washington, D.C. 20005-3934 (202) 371-2600

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Nazarenko et al.

Appl. No. 10/026,952

Filed: December 27, 2001

For: Primers and Methods for the Detection and Discrimination of

Nucleic Acids

Confirmation No. 7365

Art Unit: 1623

Examiner: To be assigned

Atty. Docket: 0942.4980006/RWE/MTT

OCT 1 5 2002

TECH CENTER 1600/2900

Third Supplemental Information Disclosure Statement

Commissioner for Patents Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Third Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Second Supplemental Information Disclosure Statement filed herewith in connection with the above-captioned application. A copy of each document is also provided.

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Respectfully submitted.

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.

Robert W. Esmond
Attorney for Applicants
Registration No. 32.893

Date: Offor 1, 2002

1100 New York Avenue, N.W. Suite 600

Washington, D.C. 20005-3934 (202) 371-2600

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Page 1 of 2 ATTY, DOCKET NO. APPLICATION NO. 0942.4980006/RWE/MTT 10/026,952 FORM PTO-1449 APPLICANT Nazarenko et al. THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP December 27, 2001 1623 U.S. PATENT DOCUMENTS EXAMINER TNTTTAT. DOCUMENT DATE NAME CLASS SIIR-FILING DATE NUMBER CLASS AA AB AC AD OCT 1 5 2002 AR TECH CENTER 1600/2900 AF AG AH AI AJ AK FOREIGN PATENT DOCUMENTS EXAMINED INITIAL DOCUMENT DATE COUNTRY CLASS SUB-TRANSLATION NUMBER CLASS Yes ΔТ. No Yes ΔМ No Yes ΔM No Yes ΑO No Yes AP No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Rye, H.S., et al., "Stable fluorescent complexes of double-stranded DNA with bisintercalating asymmetric cyanine dyes: properties and applications, " Nucl. Acids ΔÞ 18 Res. 20:2803-2812, Oxford University Press (1992) Varani, G., "Exceptionally Stable Nucleic Acid Hairpins," Annu. Rev. Biophys. AS 18 Biomol. Struct. 24:379-404, Annual Reviews Inc. (1995) Walder, R.Y., et al., "Use of PCR primers containing a 3'-terminal ribose residue to prevent cross-contamination of amplified sequences," Nucl. Acids Res. 21:4339-AT 18 4343, Oxford University Press (1993)

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DATE CONSIDERED

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Nazarenko et al.

Appl. No. 10/026,952

Filed: December 27, 2001

For: Primers and Methods for the

Detection and Discrimination of Nucleic Acids Confirmation No. 7365

Art Unit: 1623

Examiner: To be assigned

Atty. Docket: 0942.4980006/RWE/MTT

RECEIVED

OCT 1 5 2002

TECH CENTER 1600/2900 Fourth Supplemental Information Disclosure Statement

Commissioner for Patents Washington, D.C. 20231

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Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered. This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist.

This Fourth Supplemental Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

Consideration of the cited documents and making the same of record in the prosecution of the above-identified application is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted.

STERNE, KESSLER, GOLDSTEIN & FOX P.L.

Robert W. Esmond

Attorney for Applicants Registration No. 32,893

Date: October U. 2002

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FOURTH SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT

Page 4 of 6 ATTY. DOCKET NO. APPLICATION 10/026,752 0942.4980006/RWE/MTT APPLICANT OCT 1 5 2002 Nazarenko et al. FILING DATE GROUP TEL HI FN FR 1600/2900

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FORM PTO-1449 FOURTH SUPPLEMENTAL
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Confirmation No. 7365

OCT 1 5 2002

Nazarenko et al

Art Unit:

TECH UENTER 1600/2904

Appl. No. 10/026,952

Examiner: To be assigned

Filed: December 27, 2001

Atty. Docket: 0942.4980006/RWE/MTT

For: Primers and Methods for the

Detection and Discrimination of

Nucleic Acids

Fifth Supplemental Information Disclosure Statement

Commissioner for Patents Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Fifth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Fourth Supplemental Information Disclosure Statement filed herewith in connection with the above-captioned application. A copy of each document is also provided.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

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This Fifth Supplemental Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

Consideration of the cited documents and making the same of record in the prosecution of the above-identified application is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted.

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.

Robert W. Esmond

Attorney for Applicants Registration No. 32,893

Date: October 11, 2002

1100 New York Avenue, N.W. Suite 600 Washington, D.C. 20005-3934 (202) 371-2600

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FORM PTO-1449 FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

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Page 1 of 1 APPLIGATE NEIVED ATTY. DOCKET NO. 0942.4980006/RWE/MTT APPLICANT OCT 1 5 2002

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communication to Applicant.